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| APPLICATION NO.                                                                                                       | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------------------------------------------------------------------------------------------------------|-------------|----------------------|---------------------|------------------|
| 10/561,790                                                                                                            | 12/21/2005  | Hiroki Nakamura      | 283682US0PCT        | 4348             |
| 22850 7590 03/05/2009<br>OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.<br>1940 DUKE STREET<br>ALEXANDRIA, VA 22314 |             |                      |                     |                  |
| EXAMINER<br>NUTTER, NATHAN M                                                                                          |             |                      |                     |                  |
| ART UNIT                                                                                                              |             | PAPER NUMBER         |                     |                  |
| 1796                                                                                                                  |             |                      |                     |                  |
| NOTIFICATION DATE                                                                                                     |             | DELIVERY MODE        |                     |                  |
| 03/05/2009                                                                                                            |             | ELECTRONIC           |                     |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

**Application No.**

10/561,790

**Applicant(s)**

NAKAMURA ET AL.

**Examiner**

Nathan M. Nutter

**Art Unit**

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,5-12 and 15-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-12 and 15-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 12-11-08
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Application Re-Assignment***

This application has been re-assigned to Primary Examiner Nathan M. Nutter of Art Unit 1796. Contact information for Mr. Nutter will appear at the end of this Office Action.

### ***Response to Amendment***

In response to the amendment filed 22 December 2008, the following is placed in effect.

The rejection of claims 1, 2, 5, 7, 9-12 and 15-20 under 35 U.S.C. 102(b) as being anticipated by JP 06207079 A, is hereby modified below.

### ***Specification***

The disclosure is objected to because of the following informalities:

A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a statement that it contains no new matter.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 5, 7, 9-12 and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 06207079 A.

The Japanese document JP 06207079 A discloses graft polymer comprising an ethylene-propylene-(diene) rubber, ethylene-butene-(diene) rubber, isobutylene isoprene rubber, having molecular weight in the range of 70,000-800,000, and a grafted t-butyl methacrylate cyclohexyl and methyl methacrylate. Note paragraphs [0005] and [0008]. The rubbers are identical to those disclosed and the grafted monomers are deemed to be in a homologous series of acrylates. There is no chlorinated graft polymer disclosed in the document and no chlorine moiety in the grafted monomers. The (meth)acrylic acid monomers and a maleic anhydride which are mentioned under "other monomers which may be used together with methacrylic acid ester as a monomer" at paragraph [0009].

The (meth)acrylic acid monomers and a maleic anhydride are considered as an optional monomer which may not be present. Therefore, the grafted monomer (methyl)methacrylate and t-butyl methacrylate cyclohexyl monomers are homologous to the monomer claimed. The graft polymer comprises ethylene-propylene-(diene) rubber as the claimed polyolefin resin (A) having low crystalline or noncrystalline properties. The main grafted monomer methyl methacrylate is present in the amount of 80 parts. Note paragraph [0033]. Thus, the t-butyl methacrylate cyclohexyl is present in the content of at least 20 wt%. The reference shows the graft polymer having molecular weight of 70,000-800,000, as herein claimed. Note paragraph [0007]. The major amount of rubber-like polymer is taught at paragraph [0007]. For producing a polar

functionalized graft polymer the monomers such as (meth)acrylic acid-2-hydroxyethyl and acrylic acid hydroxypropyl monomers are employed. Note paragraph [0015].

Though the reference employs t-butylcyclohexyl methacrylate, the use of other constituents of a homologous series in the identical capacity would be obvious since the basic characteristics of the compound lie in its skeletal structure and not to any particular homologue. It would have been obvious to one having an ordinary skill in the art to employ the employ the t-butyl methacrylate cyclohexyl. The equivalence of the acrylate and the methacrylate for their use in the polymer art and the selection of any adjacent homologue as recognized equivalents would be within the level of ordinary skill.

Claims 6, 7 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 06207079 A as applied to claims 1, 2, 5, 7, 9-12 and 15-20 above, and further in view of Hintze-Bruning et al (US 5,817,370).

The reference JP 06207079 A fails to teach the use of the composition as a primer/adhesive coating.

Hintze-Bruning et al has been considered in previous office actions.

In addition, Hintze-Bruning discloses the manufacture of an aqueous coating binder which is used as primer. Note column 2 (line 18). The aqueous coating composition is a basecoat material for coating substrate made of plastic. Note column 8

(lines 40-41). As such, the adhesive properties of the resin resin having low- or non-polarity is taught by the reference.

It would have been obvious to one of ordinary skill in the art at the time of the present invention to use the grafted polymer in JP 06207079 A as an adhesive and/or primer for painting as suggested by Hinzte-Bruning et al since the analogous grafted polymer can be used as an aqueous dispersion for the desired utility, and because the analogous composition will have analogous adhesive properties.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 06207079 A as applied to claims 1, 2, 5, 7, 9-12 and 15-20 above, and further in view of Usui et al (US 6,800,688).

The reference to Usui et al has been considered previously.

Usui et al teach the manufacture of a graft modified polyolefin resin for an adhesive, a primer, paint, or as an ink. Note column 3 (lines 39-49).

It would have been obvious to one of ordinary skill in the art at the time of the present invention to use a grafted polymer in JP 06207079 A as adhesive or primer, or ink formulation as evidence in Usui et al, because the analogous graft polymer has analogous adhesive properties, and the resulting graft polymer can be used in a variety of desired application such as for ink application by teaching in Usui et al.

***Response to Arguments***

Applicant's arguments filed 22 December 2008 have been fully considered but they are not persuasive.

With regard to the rejection of claims 1, 2, 5, 7, 9-12 and 15-20 under 35 U.S.C. 103(a) as being unpatentable over JP 06207079 A, applicants have failed to establish any unobvious or novel differences with the reference. Applicants point to Table 1 at page 36 to show unexpected results using the acrylate ester over the methacrylate ester. Applicants attempt to do this with only one comparison. The paucity of evidence is not convincing of patentability. It is pointed out that on page 35, Table 1 shows identical results for the two samples to which applicants assert a showing. This conclusion is bolstered by the fact that the result for adhesion peel strength by manipulation of other monomers is an even greater difference. Note the differences of Examples 2 and 5, pointed out, and 3 and 7 for these characteristics. Contrary to applicants' assertion, nothing conclusive can be determined from the Table, especially in view of the lack of comparative formulae between the methacrylate ester and the acrylate ester.

With regard to the rejection of claims 6, 7 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 06207079 A in view of Hintze-Bruning et al (US 5,817,370), applicants have misconstrued the reference as though it were the basis of a separate ground under 35 USC 103. The reference is relied upon for the reasons set out.

With regard to the rejection of claim 8 under 35 U.S.C. 103(a) as being unpatentable over JP 06207079 A in view of Usui et al (US 6,800,688), again, applicants have misconstrued the reference as though it were the basis of a separate ground under 35 USC 103. The reference is relied upon for the reasons set out.

Nothing unexpected has been shown on the record.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan M. Nutter whose telephone number is 571-272-1076. The examiner can normally be reached on 9:30 a.m.-6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nathan M. Nutter/  
Primary Examiner, Art Unit 1796

nmn

27 February 2009